

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Shlomo Ben-Haim et al.

TC Art Unit: 3762

Serial No.: to be assigned

Examiner: C. Layno

(continuation of U.S. Patent Appln. S.N. 09/563,544, filed May 1, 2000)

Filed: to be assigned

For: ELECTRICAL MUSCLE CONTROLLER

October 23, 2001

BOX PATENT APPLICATION

Asst. Commissioner for Patents

Washington, D.C. 20231

PRELIMINARY AMENDMENT

S I R :

IN THE SPECIFICATION:

Page 1, please replace the second heading (line 5) "RELATED APPLICATIONS" and replace the paragraph following thereunder (lines 6-14) with the following new heading and paragraph:

-- CROSS-REFERENCE TO RELATED APPLICATION

This application is a continuation of co-pending U.S. Patent Application Serial No. 09/563,544, filed May 1, 2000, which is a continuation of co-pending U.S. Patent Application Serial No. 09/101,723, filed August 13, 1998, which is a § 371 of PCT Patent Application No. PCT/IL97/00012, filed January 8, 1997, which claims the benefit of U.S. Provisional Applications Serial Nos. 60/009,769, filed January 11, 1996; S.N. 60/011,117, filed February 5, 1996; S.N 60/026,392, filed September 16, 1996; and U.S. Patent Application Serial No. 08/595,365, filed February 1, 1996, now U.S. Patent No. 5738,096, the specification of all of which are incorporated herein by reference.--

[A copy of the Filing Receipt for co-pending U.S. Patent Application S.N. 09/563,544, filed May 1, 2000, is enclosed for your reference.]

Page 10, replace the third full paragraph (lines 24-29) with the following paragraph:

-- In still another preferred embodiment of the invention, the muscle mass of the heart is redistributed using electrical fields. In general, changing the workload on a segment of the cardiac muscle activates adaptation mechanisms which tend to change the muscle mass of the segment with time. Changing the workload may be achieved, in accordance with a preferred embodiment of the invention, by increasing or decreasing the action potential plateau duration of the segment, using applied electrical fields. Alternatively or additionally, the workload may be changed indirectly, in accordance with a preferred embodiment of the invention, by changing the activation time of the segment of the heart and/or its activation sequence. Further, additionally or alternatively, the workload may be changed by directly controlling the contractility of a segment of the heart. --

Page 34, replace the fourth full paragraph (lines 24-27) with the following paragraph:

-- Both AC and DC fields may be unipolar or bipolar. The terms AC and DC, as used herein to describe the electrical field, relate to the number of cycles in a pulse. A DC field has at most one cycle, while an AC field may comprise many cycles. In other preferred embodiments of the invention, a train of pulses may be applied, each train being an AC or of a DC type. --

Page 42, between lines 27 and 28, insert the following new paragraph:

-- An implantable light source 57 (Fig. 4B) can be used instead of the electrical controller, which generates pulses of light that are transmitted to at least one light source(s) 59 adjacent to a site of the heart, through waveguides 52a. Similarly, when

[illegible]

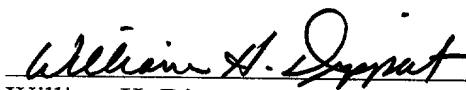
Original claims pages 58 to 66 (actually numbered 1 to 9) have been replaced with new Claims 1 to 9, comprising pages 58 and 59.

The original Abstract page has been renumbered as page 60.

REMARKS

In above amendments to the Specification are intended to set forth the "parentage" of the present application and to correct minor typographical errors.

Respectfully submitted,


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"SECRET"

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Version of Amendments with Markings to Show Changes Made
(Submission to Accompany Continuation Application, filed October 23, 2001)

-- CROSS-REFERENCE TO RELATED APPLICATION

[The present] This application is [related to the following U.S. and Israeli applications, the disclosures of which are incorporated herein by reference: U.S. provisional application 60/009,769, titled "Cardiac Electromechanics", filed on January 11, 1996, Israel application 116,699, titled "Cardiac Electromechanics", filed on January 8, 1996, U.S. Provisional application 60/011,117, titled "electrical Muscle Controller", filed February 5, 1996, Israel application 119,261, titled "Electrical Muscle Controller filed September 17, 1996, U.S. Provisional application 60.026,392, titled "electrical Muscle Controller", filed September 16, 1996 and U.S. Application Serial Number 08/595,365 titled "Cardiac Electromechanics", filed February 1, 1996] a continuation of co-pending U.S. Patent Application Serial No. 09/563,544, filed May 1, 2000, which is a continuation of co-pending U.S. Patent Application Serial No. 09/101,723, filed August 13, 1998, which is a § 371 of PCT Patent Application No. PCT/IL97/00012, filed January 8, 1997, which claims the benefit of U.S. Provisional Applications Serial Nos. 60/009,769, filed January 11, 1996; S.N. 60/011,117, filed February 5, 1996; S.N 60/026,392, filed September 16, 1996; and U.S. Patent Application Serial No. 08/595,365, filed February 1, 1996, now U.S. Patent No. 5738,096, the specification of all of which are incorporated herein by reference.--

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